

REMARKS

A final Office Action was mailed on July 23, 2004. Claims 21, 22, 24, 25 and 29 - 53 are pending in the present application. Applicant cancels claims 33 and 34 without prejudice or disclaimer, and amends claims 21, 22, 24, 25, 29, 42 and 52. No new matter is introduced.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 21, 24, 25 29 – 32 and 52 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,496,704 to Yuan. Claims 22, 43 – 51 and 53 are “rejected for similar reasons”. To clarify the nature of his invention, Applicant cancels claims 33 and 34 without prejudice or disclaimer, amends claims 21, 22, 24, 25 and 52 so that amended claims 21, 24, 25 and 52 include limitations from former claim 22, amends claim 29 to include limitations from former claim 33, and amends claim 42 to include limitations from former claim 44.

Applicant respectfully traverses the rejections.

Yuan discloses a system and method for internetworking in a mobile IP network (see, e.g., abstract of Yuan). In this disclosure, Yuan describes a number of features of a conventional mobile network employing the Mobile IP protocol (see, e.g., column 3, lines 4 – 41, column 4, lines 25 – 41, column 5, lines 9 – 33 and column 9, lines 45 – 52 of Yuan). When a mobile node (MN) using the Mobile IP protocol leaves a home network for a visited network and wishes to maintain communications using its home IP address, the MN registers an away location (for example, an address of a foreign agent (FA) of the visited network) in a home agent (HA) of the home network according to registration procedures specified in the Mobile IP protocol.

When a third-party terminal (CT) transmits a packet to the registered MN, the packet is first delivered to the home network of the MN, causing the HA to determine whether the MN has

left the home network. If it is determined that the MN has left the home network, the HA re-transmits the packet to the FA in the visited network for further routing to the MN.

A “Route Optimization” (RO) process under study by the Internet Engineering Task Force (IETF) attempts to eliminate some of the redundancies introduced by the above-described process. According to the RO process, the HA provides a new function that informs a correspondent node (CN) of the CT of a current location of the MN when the HA detects that the CN is preparing to transfer a packet to the MN via the HA. The HA accomplishes this by providing “binding information” that provides address information of the FA as an entrance to the visited network that is covering the MN. Using this information, the CT is able to perform a tunneling process in order to transmit a packet by addressing the packet to the FA instead of the home address of the MN.

In order for the CN to implement this new function, additional function must be added to the CN for performing associated service control functions (see, e.g., page 17, line 2 through page 20, line 10 of Applicant’s specification). It is essentially impractical to implement all necessary function in the CN of each CT, especially in cases where the CTs are mobile terminals incorporating CNs of limited functionality.

As a result, according to the present invention as claimed, a proxy CN is introduced that operates together with a conventional CN to perform the necessary functions (see, e.g., page 21, line 8 through page 22, line 6 of Applicant’s specification).

Yuan discloses a mobile data intermediate system (MDIS) 28 which controls mobility and performs registration, authentication, and routing functions. In its disclosure, unlike Applicant’s claimed invention, Yuan fails to describe to describe a proxy CN which is provided between a correspondent terminal and a home agent, forming a communication system with a

correspondent terminal, and providing and conducting communication services for a correspondent terminal that is communicating with a mobile node. Significantly, by means of the proxy CN, Applicant's claimed invention provides the advantage of enabling a mobile IP system that provides route optimization to avoid requiring an MN or a CN to contain any special functions by placing required functions (holding a combined cache, encapsulation of packets and so on) in the proxy CN.

In the present Office Action, the Examiner submits that Applicant places no limitations in the claims on the nature and types of terminals used in the system, and as a result, that Yuan's MDIS for intercepting and routing communications from a mobile end station to a home agent corresponds to Applicant's claimed proxy CN "between a correspondent terminal and a home agent". Even accepting arguendo the Examiner's argument in this regard, Applicant respectfully submits that Yuan's MDIS, unlike Applicant's claimed proxy CN, fails to cache binding information that provides a correspondence between an IP address of the mobile terminal and an IP address of a foreign agent that is accommodating the mobile terminal.

Accordingly, Applicant respectfully submits that Applicant's amended independent claims 21, 24, 25, 29, 42 and 52 are not anticipated by Yuan. As claims 22, 30 – 32, 34 – 41, 42, 45 – 51 and 53 each depend from one of independent claims 21, 24, 25, 29, 42 and 52, Applicant further submits that claims 22, 30 – 32, 34 – 41, 42, 45 – 51 and 53 are also allowable for at least this reason.

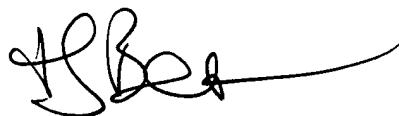
CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 21, 22, 24, 25, 29 – 32, 34 – 43 and 45 - 53, consisting of independent claims 21, 24, 25, 29, 42 and 52, and the claims

dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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